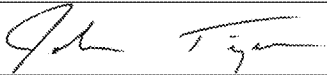


**Region 9 Enforcement Division
75 Hawthorne Street
San Francisco, CA 94105**

Inspection Date(s):	November 21, 2021		
Time:	Entry: 1:30	Exit: 2:30	
Media:	Water		
Regulatory Program(s)	Clean Water Act NPDES		
Company Name:	Kohanaiki Community Association		
Facility or Site Name:	Kohanaiki Community Association		
Site Physical Location:	Alahou Kohanaiki Kailua Kona, Hi 96745.		
Geographic Coordinates:			
Mailing address:	Alahou Kohanaiki Kailua Kona, Hi 96745.		
Facility/Site Contact:	Bill Boswell	Title: Director, civil operations	
	Phone: 808-896-6301	Email: bboswell@kohanaiki.com	
Facility/Site Identifier:	Unpermitted private wastewater treatment plant		
NAICS:			
SIC:	4952		
Facility/Site Personnel Participating in Inspection:			
Name	Affiliation	Title	Email
Damein Souza	KCA	Director Engineering	dsouza@kohanaiki.com
Jayson Pearson	Aqua Engineers	Lead Operator	jpearson@aquaengineers.com
Steve Aslenai	Aqua Engineers	Operator	
Nancy Burns, PE	Consultant		Nebpellc1@gmail.com
US EPA:			
John Tinger	US EPA	Inspector	Tinger.John@EPA.gov
Federal/State/Tribal/Local Representatives:			
Amy Miller	EPA	Enforcement Division	
Roberto Rodriquez	EPA	Safe Drinking Water	
Lily Lee	EPA	Office of Water	
Inspection Report Author:	John Tinger	415-972-3518	
		Date: 11/30/21	
Manager:	Eric Magnan	415-974-7149	
		Date:	

SECTION I – INTRODUCTION

I.1 Purpose of the Inspection

The purpose of the inspection was to evaluate a complaint received by EPA of potential non-compliance with regard to the operation of the private wastewater treatment system.

SECTION II – FACILITY / SITE DESCRIPTION

II.1 Facility Description

Kohanaiki Community is a private community and golf course with 146 homes already built and plans for 500 homes.

Sewer system is gravity line from individual homes to a pressurized system with E/one grinders and force mains to the wastewater treatment plant (WWTP). The sewer system capacity has been built in anticipation of full build out.

The WWTP also serves the public restroom facility located at the beach park.

WWTP is designed for up to 70,000 gpd. Operators stated facility typically treats about 15,000 gpd but may treat up to 35,000 gpd on weekends when beach and public restroom is being utilized (e.g., during a surf competition).

Facility treats to R-1 reuse standards (Operators stated this is only facility on island currently treating to R-1). Treated wastewater is discharged to a surface pond located within the community and then to landscape irrigation and to infiltration/dispersion areas along roadways. The R-1 effluent is not utilized for the golf course due to public perception. (The golf course is irrigated via 8 wells in brackish water with Reverse Osmosis treatment system).

Facility is staffed 7 days/week. Facility has SCADA remote operations with multiple call out alarms for high flow, pump malfunction, blower malfunction.

II.2 Wastewater Sources

Wastewater originates from homes and restroom facilities. There are no industrial discharges to the facility.

Due to pressurized collection system, there is no inflow and infiltration to the sewer system.

II.3 Wastewater Treatment

Treatment consists of bar screens, fine bubble aeration, moving bed biofilm reactor (MBBR), aeration, fine bubble dissolved air flotation (DAF), fine filtration and Ultra Violet (UV) disinfection. No chlorine is added.

Facility tests for BOD and TSS. Laboratory results for October 2021 indicated:

- BOD influent of 114 mg/L reduced to 4.2 mg/L effluent.
- TSS influent of 225 mg/L reduced to 2.0 mg/L effluent.

Operators stated DAF system typically achieves 4 NTU turbidity which is reduced to 1 NTU after filtration prior to the UV.

SECTION III – OBSERVATIONS / Operational Status

1. Facility appeared to be in compliance with Clean Water Act permitting. Facility was not observed to be discharging treated wastewater to surface waters (which would then require a NPDES - National Pollutant Discharge Elimination System permit) nor observed to be discharging any treated wastewater via underground injection (which would require a UIC-Underground Injection Control Permit).
2. Facility appears to be achieving high level of treatment, with BOD and TSS effluent below 5 mg/L and turbidity below 2 NTU.
3. Facility had odors typical of wastewater treatment system. Facility operated a blower and carbon scrubber unit designed to control odors but which did not appear to be effective.

SECTION IV – AREAS OF CONCERN

The presentation of areas of concern does not constitute a formal compliance determination or violation.

1. None.

APPENDICES

Appendix 1 – Inspection checklist

Appendix 2 – Photograph Log

Appendix 1- INSPECTION CHECKLIST

I. GENERAL

Facility Type	<input checked="" type="checkbox"/> Municipal <input type="checkbox"/> Industrial <input type="checkbox"/> Agricultural <input type="checkbox"/> Federal <input type="checkbox"/> Oil & Gas
Inspection Type	<input checked="" type="checkbox"/> Compliance Evaluation (non-sampling) <input type="checkbox"/> Compliance Sampling <input type="checkbox"/> _____
Weather <input checked="" type="checkbox"/> Dry <input type="checkbox"/> Rain <input type="checkbox"/> Clear <input type="checkbox"/> Recent Rains <input type="checkbox"/> Overcast <input type="checkbox"/> _____	
Was facility notified in advance?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Presented credentials?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Notes:	

II. RECORDS AND REPORTS REVIEW

RECORDS	Available onsite?			
	Yes	No	N/A	Not Inspected
NPDES permit	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Monitoring and reporting records for past 5 years	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Maintenance records	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Operational records/ log books	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Auxiliary power check logs	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Employee Training	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Have any spills been reported since last inspection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Spill records	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Have any bypasses been reported since last inspection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Bypass records	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Notes: <i>Facility does not have, and does not require, CWA permit</i>				
REPORTS				

	Completed in time frame and frequency as required by permit?			
	Yes	No	N/A	Not Inspected
Notification of Non-compliance	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Notification of spills	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Notification of bypass	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Pollution Prevention Plan	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Spill prevention control and countermeasure (SPCC) plan	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
POTW: Biosolids Monitoring/Management Reports	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
POTW: CSO/ I & I Reports	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
POTW: Pretreatment Reports	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Other:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Other:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Notes: <i>Facility does not have, and does not require, CWA permit</i>				

III. SELF MONITORING PROGRAM

SAMPLING RECORDS & DMRS	Yes	No	N/A	Not Inspected
Are DMRs submitted in timeframe and frequency required by permit?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Sampling Records have: Dates, times, location, & name of individual performing sampling:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Lab Reports have: Analytical methods, results, dates and time of analyses:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Are samples collected and preserved using methods approved in 40 CFR Part 136?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Lab Report results are correctly transcribed to DMR:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Detection limits are reported for "less than" results:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Does discharger monitor effluent more frequently than required by Permit?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
If Yes, is all data collected reported on DMRs?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Notes: <i>Facility does not have, and does not require, CWA permit</i>				

SAMPLE MONITORING		Yes	No	N/A	Not Inspected
Are sample locations and methods representative of Effluent?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Representative of Influent?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Representative of Receiving Waters?		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
What Flow Measurement Device is utilized?					
<input type="checkbox"/> Flume <input type="checkbox"/> Weir <input checked="" type="checkbox"/> Meter: Type _____ <input type="checkbox"/> Calculation <input type="checkbox"/> Other _____					
Device appears to be functioning properly without obstructions:		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is flow meter calibration available onsite?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Date of last calibration					
Calibration performed by					
Notes:					
ANALYTICAL MONITORING		Yes	No	N/A	Not Inspected
Does discharger perform on-site analysis for compliance monitoring?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
List parameters analyzed on-site:					
Are records of equipment calibration available?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is the on-site laboratory certified?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Certification Number					
Expiration Date					
COMPLIANCE MONITORING RATING CODE	Satisfactory <input checked="" type="checkbox"/>	Marginal <input type="checkbox"/>	Unsatisfactory <input type="checkbox"/>	Not Rated <input type="checkbox"/>	
Notes:					

IV. SITE REVIEW OPERATIONS AND MAINTENANCE

General	Yes	No	N/A	Not Inspected
Is the facility as described in the permit/fact sheet for the following?				
Processes	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Treatment Units	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Flow and/or Production Rates	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Outfalls & Monitoring Locations	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Receiving Waters	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Have there been significant changes in operation since last inspection or permit reissuance?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Plant schematic is up to date	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Notes:				
Treatment Units & Supporting Equipment	Yes	No	N/A	Not Inspected
Hydraulic and loadings rates appear consistent with the permit and plant design	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tanks, floats, pipes, valves, etc. appear in good working condition	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Equipment appears adequately maintained and functioning correctly	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
There is no visible evidence of hydraulic short-circuiting	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Process controls appear adequate	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
No safety concerns observed that may interfere with operation, maintenance, monitoring	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Notes:				
Operation & Maintenance	Yes	No	N/A	Not Inspected
O &M Manuals are organized and maintained for use:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The maintenance activities, spare parts on-hand, and equipment available appear adequate to ensure continuous operation of treatment system:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is a maintenance management program in place?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Number of open work orders:				
Oldest date of open work order:				
Notes:				
Emergencies / Power Outage	Yes	No	N/A	Not Inspected
Alarm systems for power and equipment failure:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Auxiliary power available and maintained:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Notes:				
Stormwater	Yes	No	N/A	Not Inspected
Does facility have exposure and potential to discharge Stormwater ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is discharger subject to Multi Sector General Permit (MSGP) ?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
If Yes → Filed Notice of Intent?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
If Yes → Stormwater Pollution Prevention Plan (SWPPP) available	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Is there evidence of unauthorized (non-stormwater) discharges?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are there signs of spills to soil, groundwater, or surface water ?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is adequate equipment available for spill cleanup and containment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Are the following areas observed to be free of materials to prevent stormwater pollution?				
	Yes	No	N/A	Not Inspected
Storage areas	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fueling areas	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Maintenance areas	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Loading and unloading areas	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Waste disposal areas	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Chemicals are stored in secondary containment:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Notes:				

V. FINAL EFFLUENT AND RECEIVING WATER MONITORING

EFFLUENT APPEARANCE	Yes	No	N/A	Not Inspected
Clear	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Colorless	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Free of oil sheen	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Free of floatables	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Free of objectionable odor	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Notes:				
RECEIVING WATER APPEARANCE				
Free of visible plume	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Free of foam and sheen	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Free of erosion at the discharge point	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Free of bottom deposits, algae growth	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Notes:				

Appendix 2 – Photograph Log: The photographs were taken during the inspection by John Tinger. Original copies of the photos are maintained by EPA Region 9.

1: Facility location of wastewater treatment plant



Photo 2: SCADA system overview

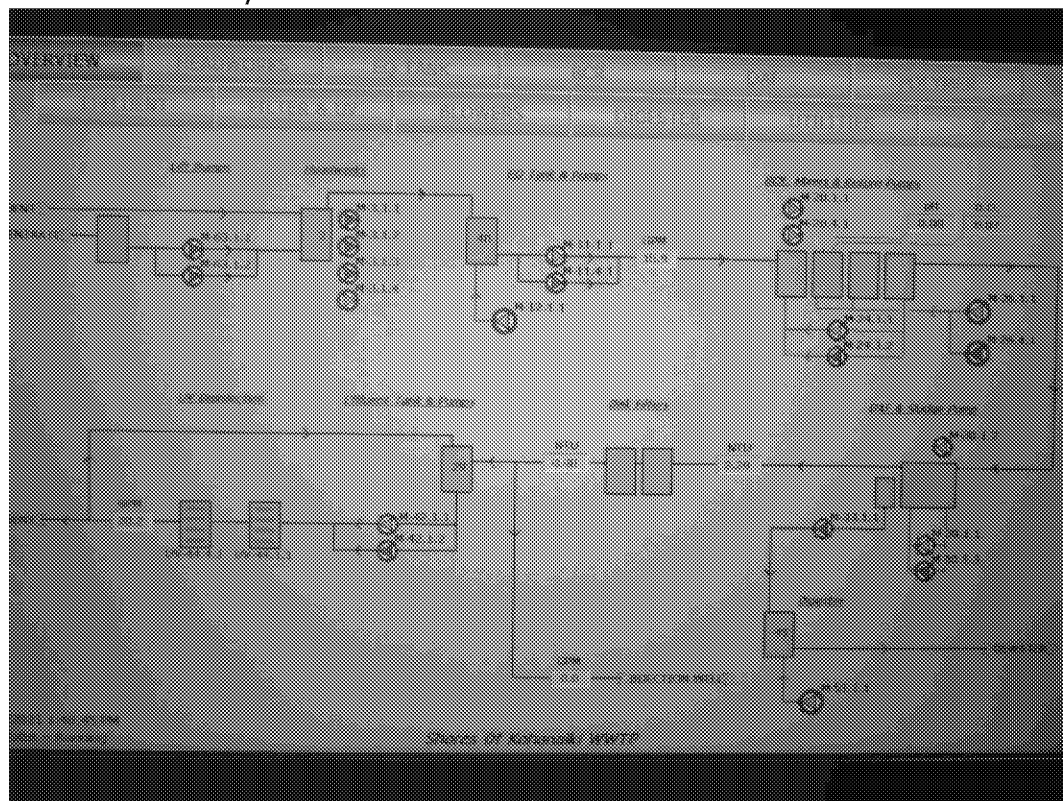


Photo 3: Top of unit



Photo 4: moving bed biofilm reactor



Photo 5: DAF unit



Photo 6: DAF Unit detail



Photo 7: Fine Screen



Photo 8: Fine screen detail



Photo 9: UV disinfection and outflow monitoring



Photo 10: Reuse and infiltration area for treated wastewater along roadway.

